

REMARKS

Status of the Claims

The Office Action considered pending claims 2-7, of which claims 6 and 7 are in independent form.

No claims are canceled, added, or amended by this amendment.

Summary of Examiner Interview

Appreciation is expressed for courtesies extended to Applicant's representative, James C. Larsen, in a telephonic interview on August 19, 2010. In the interview the participants discussed the insufficiency of the applied prior art with respect to features of the independent claims. In particular, the applied Tagawa reference is asserted to lack the voltage varying device of claims 6 and 7 as discussed in more detail below. After reviewing the Tagawa reference and the claims, the examiner agreed that the Tagawa reference does not disclose the claimed features as asserted in the Office Action.

Rejections under 35 U.S.C. §103(a)

Independent claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nose (USP 7,218,305) in view of Tagawa et al. (US Patent: 6,927,766).

Dependent claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nose in view of Tagawa as applied to claims 6-7 and further in view of Iisaka (US Patent 7,084,861).

These rejections are respectfully traversed.

Independent claim 6 recites, in part:

a voltage varying device that varies ... a gradation voltage ... so as to prevent changes in gamma characteristics due to differences in response speed of liquid crystal between display gradations, which differences are caused by insertion of the monochrome display data.

The present office action acknowledges the deficiency of Nose regarding this feature, and asserts that "Tagawa teaches a gradation voltage applied to the liquid crystal display panel and corresponding to the image data so as to prevent changes in gamma characteristics". (OA, page 4.)

Tagawa Does Not Disclose the Asserted Feature

Referring to its Figs. 7A-7D, Tagawa observes the functionality of prior art: In two frames subsequent to a black display "driving voltages are applied to the picture element P1x and the picture element Pnx in such a manner as to provide the same gray level (ideally the brightness of the picture element P1x is equal to the brightness of the picture element Pnx when the same driving voltage is applied)." (Col. 4, lines 25-33.)

We note first that the Office Action may be confusing "gray level" with "gamma characteristics". There is a clear difference between gamma and gray level. As well-understood in the art, "gamma" describes a *relationship* between display gradation and display brightness (liquid crystal transmittance). Fig. 13 of the present application illustrates this relationship. Thus, although gamma may partly involve "gray level," the terms do not have the same meaning.

Furthermore, in reference to its Figs. 7C and 7D, Tagawa also indicates that "although driving voltages to provide the same gray level are applied to the respective picture elements P1x and Pnx, the brightness of the picture element Pnx is *much smaller* than the brightness of the picture element P1x." (See col. 4, lines 56-60, emphasis added.) This acknowledges that applying voltages to provide a same gray level does *not* prevent changes in *brightness*. I.e., changes in a relationship between display gradation and brightness are not prevented. More specifically, Tagawa acknowledges that providing the same gray level in respective picture elements does not, alone, prevent changes in gamma characteristics. Further confirming the difference, Tagawa addresses a stated problem by increasing the response speed of liquid crystal with respect to displaying light. (Col. 5, lines 10-12.)

In short, Nose and Tagawa do not disclose every feature of the present claims. Incidentally, although not applied to claim 6, Iisaka does not supply the features missing from

Nose and Tagawa. Accordingly, claim 6 is respectfully submitted to be in condition for allowance. **Claims 2-5** are in allowable condition due at least to their dependence from claim 6.

Similarly, **claim 7** recites, in part:

a voltage varying device that varies ... a gradation voltage ... so that a relationship between a display gradation of the image and an integral of display transmittance of the image within the input image data rewriting period, in a case where the driving device drives the liquid crystal display panel in the impulse drive mode, is equal to a relationship between the display gradation of the image and the display transmittance of the image in a case where the driving device drives the liquid crystal display panel in the hold drive mode.

For much the same reasons as discussed for claim 6, Tagawa's provision of "same gray level" to respective picture elements P1x and Pnx is not the same as variation of a gradation voltage to make "a relationship between display gradation of the image and an integral of display transmittance of the image within the input image data rewriting period" in an impulse drive mode equal to that of a hold drive mode. Tagawa does not acknowledge or maintain such a relationship.

Claim 7 is respectfully submitted, therefore, to being in condition to overcome the § 103 rejection because none of the applied art references, alone or in combination, discloses or makes obvious the claimed combination of features.

Accordingly, withdrawal of the rejection, favorable reconsideration and allowance are respectfully requested.

If it is later determined that different art discloses or makes obvious the claimed features, it is respectfully requested that the next office action be non-final since such "new ground of rejection [would be] neither necessitated by applicant's amendment of the claims, nor based on information submitted in an [interim] information disclosure statement". MPEP 706.07(a)

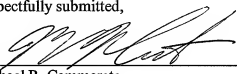

Conclusion

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact James C. Larsen, Registration No. 58565 at the telephone number of the undersigned below to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Director is hereby authorized in this, concurrent, and future replies to charge any fees required during the pendency of the above-identified application or credit any overpayment to Deposit Account No. 02-2448.

Dated: September 10, 2010

Respectfully submitted,

By 
Michael R. Cammarata
Registration No.: 39491
James C. Larsen 
Registration No.: 58565
BIRCH, STEWART, KOLASCH & BIRCH, LLP
8110 Gatehouse Road, Suite 100 East
P.O. Box 747
Falls Church, VA 22040-0747
703-205-8000